

REMARKS

Reconsideration of the above identified application is respectfully requested.

It is noted that the examiner's form PTO-892 lists reference A on page 1 and references A, B, and C on page 2 which duplicate the same references initially cited in Applicants' IDS form 1449. It would appear that these duplicate references should be removed from the PTO-892 form to ensure proper attribution.

On 07/17/2007, the undersigned attorney conducted a phone interview with examiner Rodriguez to briefly discuss the rejections of record. Although no agreement was reached, this amendment is being presented consistent with the interview for further consideration.

In response to the objection to claim 24, it has been amended to depend from preceding claim 23 as originally intended.

Accordingly, withdrawal of the objection thereto is warranted and is requested.

Applicants traverse the two omnibus rejections of claims 1-26 under Section 102(b) over Martens '711 and under Section 102(b) over Balzer '004.

The examiner's reproduction of the four figures found at page 3 of the office action fails to provide suitable evidentiary support for the rejections, and is taken out of context from both the two references and Applicants' own patent application.

The original chevron nozzle cited in the Background section includes triangular chevrons for attenuating exhaust noise, but at the price of undesirable pressure losses.

Paras. 23 & 25 of the specification expressly state the improved chevron configuration which is sinuous instead of straight sided. And, para. 34 states the improved performance.

The several figures presented in the Martens '711 reference clearly illustrate that the chevrons 34 have straight sides along the trailing edges 34e.

The several figures presented in the Balzer '004 reference also clearly shown that the triangular nozzle extensions 1 have straight sides between the semi-round tips and valleys.

The examiner has isolated at page 3 of the office action only figures 1 & 2 from Applicants' application, without due weight to the remaining figures which better show the significant differences in chevron configuration due to the sinuous trailing edge.

Indeed, figures 3 & 4 clearly show the sinuous trailing edge 48, which in the preferred embodiment is sinusoidal.

Figure 4 in Martens '711 matches the orientation of figure 4 in the present application; and the differences therebetween are striking.

In figure 4 of Martens '711, the side edges of the chevrons are clearly straight, whereas in figure 4 of Applicants' application the side edges follow a Sine curve.

And, in figures 4A and 5A of the Balzer '004 reference, the side edges of the mixing devices are clearly straight.

Independent claim 1 recites laterally sinuous chevrons 42 extending aft to define sinuous slots 54.

Similarly, independent claim 11 recites chevrons 42 having laterally sinuous trailing edges 48 extending axially between the base 50 and apex 52.

The common dictionary definition of sinuous is having many curves, bends, or turns, and Applicants' specification illustrates such curves, bends, or turns of the preferred sinusoidal configuration.

That sinuous configuration is not straight, as the specification explains, in contradistinction from the original chevron nozzle; as well as being patentably different from the two applied references Martens '711 and

Balzer '004, which illustrate straight, not sinuous sides.

The examiner has also rejected claims 8 and 19 over the two references without due weight to the specific recitation of the sinusoidal species recited in these claims.

The common dictionary definition of sinusoidal corresponds with a sinusoid which is a curve that follows the trigonometric Sine equation.

Applicants' specification at paras. 33 & 34 clearly states the Sine curve species, and figure 4 clearly illustrates that species, which has no evidentiary counterpart in the two references being applied.

The Sine function is a very specific mathematical expression and has a notoriously well known curve, which is clearly not found in the various figures shown in Martens '711 and Balzer '004.

Clearly, the Sine wave does not include either straight sections, or semi-round portions, as found in the references being applied.

The Balzer '004 reference includes claims 1-10, with claim 1 simply reciting a "sinusoidal or 'saw-toothed' wave shape" for the recited "segmented, triangular or trapezoidal shaped, curved extension," yet there is no antecedent or other descriptive support in the specification for these disparate embodiments, and insufficient description under Section 112 of the Patent Statute.

The "sinusoidal" term is merely used in Balzer as an alternate for the "saw-toothed" term, and the only disclosed configuration thereof is illustrated in figures 4A and 5A as having straight sides with semi-round tips and valleys in the general saw-tooth repeated profile.

Clearly, this reference Balzer '004 lacks sufficient evidentiary support to define "sinusoidal" other than the illustrated species having straight sides.

And, indeed, the patent 6,612,106 which issued from the common application 09/822,962 supporting the reference Balzer

'004 publication has a single, different claim replacing the ten claims of the publication, and the "sinusoidal" feature is no longer found in the issued patent.

Accordingly, the examiner has failed to show sufficient evidence in either Martens '711 or Balzer '004 to anticipate not only the two independent claims 1 and 11, as originally, filed, but also the various claims dependent therefrom that introduce additional features in different cooperation therewith, and not found in the applied references.

Accordingly, withdrawal of the two omnibus rejections of claims 1-26 under Section 102(b) over Martens '711 and over Balzer '004 is warranted and is requested.

However, the phone interview with the examiner addressed these fundamental differences over the present claims and the applied references, and explored the examiner's broad interpretation of the reference features.

In a effort to emphasize these patentably distinguishing features, the claims are being amended, without prejudice.

In particular, the continuous nature of the sinuous trailing edge 48 recited in claim 18 is being moved to independent claim 11, and the laterally or circumferentially curved nature of that trailing edge is also be added to claim 11.

Paras. 30 and 33 describe the continuous curvature of the chevron trailing edges, which is fundamentally different than the straight sides of the species disclosed in references Martens '711 and Balzer '004 applied by the examiner.

Since the "sinusoidal" feature recited in claim 1 of reference Balzer '004 is disclosed in the figures of Balzer '004 as having semi-round tips and valleys between straight sides, then that "sinusoidal" configuration of Balzer '004 cannot be continuous in the manner now recited in claim 11.

Claim 1 is being similarly amended based on claim 18

and Paras. 30 and 33 of the specification, to emphasize the laterally curved sinuous profile of the row of chevrons 42, with each chevron 42 being continuously sinuous axially along the complementary slots 54.

Since both references Martens '711 and Balzer '004 disclose the straight side features, they cannot support the rejection of the recited chevrons which are continuously sinuous, and therefore not straight sided.

The various dependent claims are patentably distinguishable over the applied references for the fundamental differences of their parent claims, as well as for the additional features recited therein in combination therewith having no counterpart in the references which teach straight-sided species.

Since claims 1 and 11 have been amended for the continuous sinuous chevrons, claims 7 and 16 are being amended to recite the continuation of the recited arcuate profile between the fillets 56 or bases 50 and apexes 52 as disclosed in Para. 31, which is well distinguishable over the straight sided species in the applied references.

Claim 18 is also being amended to recite the sinusoidal curve species around the nozzle circumference as disclosed at Para. 33, which is also well distinguishable over the straight sided species in the applied references.

Accordingly, for these additional reasons, withdrawal of the various rejections is warranted and requested.

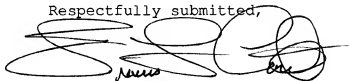
In accordance with the duty imposed by 37 CFR 1.104 and MPEP sections 707, 707.05, 707.07, and 707.07(g), the examiner is requested to reconsider all the art of record, including the additional references not applied, to ensure full compliance with the required thoroughness of examination.

In re Portola Packaging, Inc., 42 USPQ2d 1295 (Fed. Cir. 1997) emphasizes the importance of complying with this duty to ensure that all references of record have been fully

considered by the examiner in the various combinations thereof. And, the Board of Appeals has further elaborated on the importance of this examiner duty in Ex parte Schricker, 56 USPQ2d 1723 (B.P.A.I. 2000).

In view of the above remarks, allowance of all claims 1-26 over the art of record is warranted and is requested.

Respectfully submitted,

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